

Claims:

1. An isolated nucleic acid molecule encoding a CB1b receptor, said nucleic acid molecule comprising a nucleotide sequence having at least 95% identity to a degenerate variant of SEQ ID NO: 1.
2. An isolated nucleic acid molecule encoding a CB1b receptor, said nucleic acid molecule comprising a nucleotide sequence having at least 95% identity to SEQ ID NO: 1.
- 10 3. An isolated nucleic acid molecule encoding a CB1b receptor comprising a nucleotide sequence of SEQ ID NO: 1.
4. The isolated nucleic acid molecule of claim 1, said nucleic acid molecule consisting of a nucleotide sequence of SEQ ID NO: 1.
- 15 5. An isolated nucleic acid molecule encoding a CB1a receptor comprising the amino acid sequence of SEQ ID NO: 2, or a sequence with 95% sequence identity thereto.
6. The isolated nucleic acid molecule of claim 5, wherein the nucleotide sequence encodes a polypeptide sequence consisting of the amino acid sequence of SEQ ID NO: 2
- 20 7. The nucleic acid molecule of claim 5, said nucleic acid molecule comprising a nucleotide sequence having at least 95% identity to a degenerate variant of SEQ ID NO: 1.
- 25 8. A vector comprising the nucleic acid molecule of any of claims 1-7.
9. A host cell comprising the vector of claim 8.
10. The cell of claim 9, wherein the cell expresses the nucleic acid sequence.
- 30 11. A purified polypeptide of the CB1b receptor comprising an amino acid sequence having at least 95% identity to the amino acid sequence of SEQ ID NO: 2.

12. The purified polypeptide of claim 11, wherein the amino acid sequence comprises the amino acid sequence of SEQ ID NO: 2.

13. A method for producing a CB1b receptor comprising:

- 5 a) culturing the host cell of claim 9 under conditions whereby said receptor is produced, and
- b) recovering the receptor from the host cell culture or culture medium.

14. A method for detecting a polynucleotide which encodes a CB1b receptor in a
10 biological sample comprising the steps of:

- a) contacting a probe capable of selectively hybridising to CB1b nucleic acid to nucleic acid nucleic acid material of a biological sample, thereby forming a hybridization complex; and
- b) detecting the hybridization complex, wherein the presence of the complex correlates
15 with the presence of a polynucleotide encoding a CB1b receptor in the biological sample.

15. A method for detecting a polynucleotide which encodes a CB1b receptor in a biological sample comprising the steps of:

- 20 a) PCR amplification of nucleic acid from the biological sample using primers that hybridise either side of the 99 base deletion found in CB1b relative to CB1;
- b) amplifying up the target region; and,
- c) detecting the presence of a polynucleotide which encodes a CB1b receptor on the basis of the size of amplified product generated in step (b).

25 16. A method for identifying a compound which binds to the CB1b receptor, comprising

- a) contacting the receptor of claim 11 or 12, or cell expressing the receptor of claim 10 with a test compound, and
- b) determining if the receptor binds to the test compound.

30 17. A purified antagonist, agonist, modulator or inverse agonist of the polypeptide of SEQ ID NO: 2.

18. A pharmaceutical composition comprising a substantially purified CB1b receptor inhibitory nucleic acid molecule, said molecule capable of selectively binding to the CB1b nucleic acid, in conjunction with a suitable pharmaceutical carrier.

5 19. The pharmaceutical composition as claimed in claim 18 wherein the inhibitory nucleic acid molecule is selected from the group consisting of: an antisense, ribozyme, triple helix and RNAi molecule.

20. A pharmaceutical composition comprising an agonist, an inverse agonist, a modulator
10 or an antagonist of the CB1b receptor of SEQ ID NO: 2.

21. A method for treating or preventing a CB associated disorder comprising administering to a subject in need of such treatment an effective amount of a pharmaceutical composition of claim 19 or 20.

15 22. A screening system wherein the modulatory ability of a test compound is determined by screening the compound against a panel of cannabinoid receptors, said panel comprising CB1b and at least one other cannabinoid receptor family member.

20 23. A screening system as claimed in claim 22, wherein the other cannabinoid receptor family member is selected from the group consisting of: CB1, CB1a and CB2.

24. A screening system as claimed in claim 22 or 23 wherein the test compound is screened against CB1b and at least CB1 and CB1a.

25 25. A screening system as claimed in claim 22, 23 or 24 wherein the test compound is screened against CB1b and at least CB1, CB2 and CB1a.

26 26. A method for determining the selectivity of a test compound against a cannabinoid
30 receptor family member comprising determining the ability of the test compound to modulate each of a panel of cannabinoid receptors, said cannabinoid receptor panel comprising the CB1b receptor and at least one other cannabinoid receptor selected from CB1, CB2 and CB1a.

27. The method according to claim 26 wherein a profile of the modulatory ability of the test compound is compiled.